**§ 80.223 Special requirements for survival craft stations.**

(a) Survival craft stations capable of transmitting on:

(1) 2182 kHz must be able to operate with A2B and A3E or H2B and H3E and J2B and J3E emissions;

(2) 121.500 MHz must be able to operate with A3E or A3N emission.

(b) Survival craft stations must be able to receive the frequency and types of emission which the transmitter is capable of using.

(c) Any EPIRB carried as part of a survival craft must comply with the specific technical and performance requirements for its class contained in subpart V of this chapter.

**§ 80.225 Requirements for selective calling equipment.**

This section specifies the requirements for voluntary digital selective calling (DSC) equipment and selective calling equipment installed in ship and coast stations. Reference to any CCIR Recommendation in this section is to the most recent CCIR approved Recommendation that does not prevent the use of existing equipment.

(a) DSC equipment voluntarily installed in coast or ship stations must meet either the requirements of CCIR Recommendation 493 (including only equipment classes A, B, D, and E) or RTCM Paper 56–95/SC101–STD. DSC equipment must not be used with the sensors referred to in §80.179(e)(2). DSC equipment used on compulsorily fitted ships must meet the requirements contained in subpart W for GMDSS.

(b) Manufacturers of Class C DSC equipment to be used on United States vessels must affix a clearly discernible permanent plate or label visible from the operating controls containing the following:

WARNING. This equipment is designed to generate a digital maritime distress and safety signal to facilitate search and rescue. To be effective as a safety device, this equipment must be used only within communication range of a shore-based VHF marine channel 70 distress and safety watch system. The range of the signal may vary but under normal conditions should be approximately 20 nautical miles.

(c) Selective calling equipment, other than that designed in accordance with paragraph (a) of this section, is authorized as follows:

(1) Equipment used in conjunction with the Automated Maritime Telecommunications System (AMTS) in the band 216–220 MHz,

(2) Equipment used to perform a selective calling function during narrow-band direct-printing (NB–DP) operations in accordance with CCIR Recommendation 476 or 625, and

(3) Equipment functioning under the provisions of §80.207(a) includes the brief use of radiotelegraphy, including keying only the modulating audio frequency, tone signals, and other signalling devices to establish or maintain communications provided that:

(i) These signalling techniques are not used on frequencies designated for general purpose digital selective calling (DSC) and distress and safety DSC calling as listed in §80.359;

(ii) The authorized radiotelephone emission bandwidth is not exceeded;

(iii) Documentation of selective calling protocols must be available to the general public; and,

(iv) Harmful interference is not caused to stations operating in accordance with the International Radio Regulations.

[54 FR 10009, Mar. 9, 1989, as amended at 62 FR 40306, July 28, 1997]

EFFECTIVE DATE NOTE: At 68 FR 46966, Aug. 7, 2003, §80.225 was amended by revising the introductory paragraph and paragraphs (a) and (c)(2) effective October 6, 2003. For the convenience of the user, the revised text is set forth as follows:

**§ 80.225 Requirements for selective calling equipment.**

This section specifies the requirements for voluntary digital selective calling (DSC) equipment and selective calling equipment installed in ship and coast stations, and incorporates by reference ITU–R Recommendation M.476–5, ''Direct-Printing Telegraph Equipment in the Maritime Mobile Service,'' with Annex, 1995; ITU–R Recommendation M.493–10, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2000; ITU–R Recommendation M.625–3, ''Direct-Printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995; and RTCM Paper 56–95/SC101–STD, ''RTCM Recommended Minimum Standards for Digital Selective Calling (DSC) Equipment Providing Minimum Distress and Safety Capability,'' Version 1.0, dated August 10, 1995. ITU–R Recommendations M.476–5 with Annex, M.493–10 with Annexes 1 and 2, and M.625–3 with Annex, and

RTCM Paper 56–95/SC101–STD are incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of these standards can be inspected at the Federal Communications Commission, 445 12th Street, SW., Washington, DC (Reference Information Center) or at the Office of the Federal Register, 800 North Capitol Street, NW. Suite 700, Washington, DC. The ITU–R Recommendations can be purchased from the International Telecommunication Union (ITU), Place des Nations, CH–1211 Geneva 20, Switzerland. The RTCM standards can be purchased from the Radio Technical Commission for Maritime Services (RTCM), Suite 600, 1800 Diagonal Road, Alexandria, Virginia 22314–2480.

(a) DSC equipment voluntarily installed in coast or ship stations must meet either the requirements of ITU–R Recommendation M.493–10, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2000 (including only equipment classes A, B, D, and E) or RTCM Paper 56–95/SC101–STD. DSC equipment must not be used with the sensors referred to in §80.179(e)(2). DSC equipment used on compulsorily fitted ships must meet the requirements contained in subpart W of this part for GMDSS.

* * * * *

(c) * * *

(2) Equipment used to perform a selective calling function during narrow-band direct-printing (NB–DP) operations in accordance with ITU–R Recommendation M.476–5, ''Direct-Printing Telegraph Equipment in the Maritime Mobile Service,'' with Annex, 1995, or ITU–R Recommendation M.625–3, ''Direct-Printing Telegraph Equipment Employing Automatic Identification in the Maritime Mobile Service,'' with Annex, 1995, ITU–R Recommendation M.493–10, ''Digital Selective-calling System for Use in the Maritime Mobile Service,'' with Annexes 1 and 2, 2000, and

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### § 80.227 Special requirements for protection from RF radiation.

As part of the information provided with transmitters for ship earth stations, manufacturers of each such unit must include installation and operating instructions to help prevent human exposure to radiofrequency (RF) radiation in excess of the RF exposure guidelines specified in §1.1307(b) of the Commission's Rules.

[53 FR 28225, July 27, 1988]

### § 80.229 Special requirements for automatic link establishment (ALE).

Brief signalling for the purposes of measuring the quality of a radio channel and thereafter establishing communication shall be permitted within the 2 MHz–30 MHz band. Public coast stations providing high seas service are authorized by rule to use such signalling under the following conditions:

(a) The transmitter power shall not exceed 100 W ERP;

(b) Transmissions must sweep linearly in frequency at a rate of at least 60 kHz per second, occupying any 3 kHz bandwidth for less than 50 milliseconds;

(c) The transmitter shall scan the band no more than four times per hour;

(d) Transmissions within 6 kHz of the following protected frequencies and frequency bands must not exceed 10 μW peak ERP:

(1) Protected frequencies (kHz)

| | | | | |
|---|---|---|---|---|
| 2091.0 | 4188.0 | 6312.0 | 12290.0 | 16420.0 |
| 2174.5 | 4207.5 | 8257.0 | 12392.0 | 16522.0 |
| 2182.0 | 5000.0 | 8291.0 | 12520.0 | 16695.0 |
| 2187.5 | 5167.5 | 8357.5 | 12563.0 | 16750.0 |
| 2500.0 | 5680.0 | 8364.0 | 12577.0 | 16804.5 |
| 3023.0 | 6215.0 | 8375.0 | 15000.0 | 20000.0 |
| 4000.0 | 6268.0 | 8414.5 | 16000.0 | 25000.0 |
| 4177.5 | 6282.0 | 10000.0 | | |

(2) Protected bands (kHz)

4125.0–4128.0
8376.25–8386.75
13360.0–13410.0
25500.0–25670.0

(e) The instantaneous signal, which refers to the peak power that would be measured with the frequency sweep stopped, along with spurious emissions generated from the sweeping signal, must be attenuated below the peak carrier power (in watts) as follows:

(1) On any frequency more than 5 Hz from the instantaneous carrier frequency, at least 3 dB;

(2) On any frequency more than 250 Hz from the instantaneous carrier frequency, at least 40 dB; and